

# Occasions, people and places for pork consumption in Europe. Empirical findings from the Q-Porkchains pan-European consumer survey

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**Abstract— Objective:** to describe the occasions when, the places where and people with whom respondents reported pork meat consumption.

**Design & Setting:** Cross-sectional web based survey in Belgium, Denmark, Germany, Greece and Poland, January 2008, with quota samples on gender (male, female), age categories (20-44y and 45-70y), and locality of residence (urban, rural with low pig production density and rural with high pig production density).

**Subjects:** 2437 respondents (51% women, 49% men; mean age 41.4 y SD 13.1).

**Methods:** Online computer based survey, including socio-demographic information, anthropometrics (weight, height), and further questions on frequency of pork consumption (30 common items, 17 country-specific items), the occasions (working day, any day, weekend, special occasions), the company (alone, with family, with friends, with others) and the place of actual consumption (at home, outside of home). Results are aggregated for the five European countries.

**Results:** Tenderloin, mignonette, brochette together with pork shoulder ranked as the first choices for weekend and special occasions. The most out-of home consumed products are mixed gyros-pita meat, pork based brochette, pizza, small cuts, marinated meat, escalope, shoulder, tenderloin and mixed meat. The Greek country specific Sygglino, Tigania, and the Country-style sausage are amongst the main preferences for out of home consumption. At European level, most products are consumed at home and with the family. Meat products such as salami, ham, and similar products are amongst the first choices when eating alone. Semi-processed meat like brochettes, small cuts and marinated or ready to eat dishes as gyros-pitas and pizza are the main choice for eating in the company of friends.

**Conclusions:** European respondents seem to make specific choices of food depending on to the occasions, the places and the company. This information highlights the potential orientation of consumers towards fresh meat for special occasions or weekends, and more processed and convenient products when alone or socializing. This information is also useful to address interventions aiming at the improvement of food related health in Europe.

**Keywords—** Occasions, Pork consumption, Europe, Q-Porkchains

## I. Introduction

Quality of pork and pork products has become a complex and dynamic theme comprising not only the total pork chain from fork-to-farm but also several interactions with people's demand for economic and

environmental sustainability. These demands may be different according to the people's role as consumers, as citizens and as producers. The European Union's self-sufficiency and leading position in the global market for pork and pork products is challenged mainly by Brazil, China, USA and Canada. Therefore, the need for developing innovative, integrated, and sustainable food production chains of high quality pork products matching consumer demands is being addressed by the EU Funded project,. As part of the strategy, in January 2008 Q-PORKCHAINS carried out a consumer survey in order to identify consumers' and citizen's behaviour and preferences on several aspects of the pork chain.

So far the principal focus of surveillance in Europe and the developed world has largely been the relationship between chronic disease and dietary intake. However, many other important factors, that may be related to or a consequence of obesity have not been yet considered. Therefore, monitoring other determinants of food intake, such as the occasions, the places or the social aspect of eating and choosing specific products becomes of utmost importance, particularly when addressing public messages pertaining to healthy eating. The objective of the present study is to describe the occasions when, the places where and people with whom respondents reported pork meat consumption.

## II. Methodology

A computer based survey was carried out in 5 European countries (Belgium, Denmark, Germany, Greece and Poland). The questionnaire consisted of nine sections: 1) Socio-demographic characteristics of the respondent; 2) Food related lifestyle questions; 3) Schwartz Pictorial Value Questionnaire; 4) Attitudes towards environment and nature, industrial food

production and technological progress; 5) Attitudes towards animal welfare; 6) Ethnocentrism; 7) Conjoint analysis of pig production systems; 8) A questionnaire on the frequency of intake of pork based food products including, further questions on frequency of pork consumption (30 common items, 17 country-specific items), the occasions (working day, any day, weekend, special occasions), the company (alone, with family, with friends, with others) and the place of actual consumption (at home, outside of home). The final section 9) referred to Attitudes towards animal biotechnology.

The sample was intentionally targeted to 20 to 70 year olds in the five countries, with specific quotas according to age (20-44y and 45-70y) and locality of residence (urban, rural with low pig production density and rural with high pig production density). The fieldwork took place from the January 10<sup>th</sup> to January 24<sup>th</sup> 2008. The questionnaires were completed by the respondents, at a moment and place which is convenient for them, within the foreseen time period.

### III. Results

**Sample characteristics:** A total number of 2437 respondents completed the online based questionnaire. Female respondents represented 51% of the total sample. The mean age of female respondents was 38 y (SD 12) while the mean age of men was 48 y (SD 13). This difference was statistically significant ( $P < 0.05$ ). The sample was equally distributed in all the five countries (20% in each). According to the quota design, 42% of the respondents live in urban areas, while 32% in rural areas with high density of pork production and the remaining 26% in rural areas with very low pork production. Sixty-four percent of the respondents are not living alone (50% married, 14% cohabiting) while the rest include single (25%), widowed (2%) or divorced (9%) respondents. Almost half of the respondents had superior education (49%), followed by 50% with secondary education (35% upper, 15% lower).

**Table 1** shows the occasions when, the places where and people with whom respondents reported

pork meat consumption. **Table 2** refers to country specific products.

**Occasions:** Table 1 shows that at European level, pork meat is consumed at any occasion, suggesting a wide spectrum of acceptance. Tenderloin, mignonette, brochette together with pork shoulder ranked as the first choices for weekend and special occasions.

**Places:** The most out-of home consumed products are mixed gyros-pita meat, pork based brochette, pizza, small cuts, marinated meat, escalope, shoulder, tenderloin and mixed meat. The Greek country specific Syggolino, Tigania, and the Country-style sausage are amongst the main preferences for out of home consumption (Table 2).

**Company:** At European level, most products are consumed at home and with the family. Meat products such as salami, ham, and similar products are amongst the first choices when eating alone. Semi-processed meat like brochettes, small cuts and marinated or ready to eat dishes as gyros-pitas and pizza are the main choice for eating in the company of friends.

### IV. Conclusions

European respondents seem to make specific choices of food depending on to the occasions, the places and the company. This information highlights the potential orientation of consumers towards fresh meat for special occasions or weekends, and more processed and convenient products when alone or socializing. This information is also useful to address interventions aiming at the improvement of food related health in Europe.

**Table 1** Occasions when, the places where and people with whom respondents reported pork meat consumption

| Meat Cuts                                    | When do you normally eat |           |                   |                             |              | With whom do you eat? |               |                |                    |              | Where do you normally eat |           |
|--|--------------------------|-----------|-------------------|-----------------------------|--------------|-----------------------|---------------|----------------|--------------------|--------------|---------------------------|-----------|
|  | On a week day %          | Any day % | During week end % | Only on special occasions % | Don't know % | Alone %               | With family % | With friends % | In other company % | Don't know % | Outside home %            | At home % |
|  |                          |           |                   |                             |              |                       |               |                |                    |              |                           |           |
| Tenderloin                                   | 7                        | 55.1      | 19.6              | 17.2                        | 1.2          | 7                     | 74            | 13.4           | 4.1                | 1.5          | 20.1                      | 79.9      |
| Mignonette                                   | 9.2                      | 66.2      | 15.1              | 7.6                         | 1.9          | 8.3                   | 79            | 7.2            | 3.5                | 2            | 13.4                      | 86.6      |
| Pork ribs                                    | 12.2                     | 70.3      | 7.7               | 8.4                         | 1.4          | 12.5                  | 74.5          | 7.9            | 3.1                | 2.1          | 14.3                      | 85.7      |
| Hespgebraad                                  | 8.9                      | 68.9      | 13.1              | 8                           | 1.1          | 8.5                   | 78.4          | 7.5            | 3.6                | 2            | 14.2                      | 85.8      |
| Spieringkotelet, spieringgebraad             | 10.6                     | 70.2      | 12.2              | 6                           | 0.9          | 8.9                   | 79.4          | 6.3            | 3.4                | 2            | 12.2                      | 87.8      |
| Shoulder, Pork carbonade                     | 9.8                      | 71.2      | 10                | 7.8                         | 1.2          | 10.3                  | 78.1          | 6.5            | 3.5                | 1.6          | 15.6                      | 84.4      |
| Pork offal/entrails such as liver or kidneys | 16                       | 67.9      | 5.5               | 8.9                         | 1.6          | 18                    | 72.2          | 4.9            | 3.9                | 1            | 15.2                      | 84.8      |
| Minced pork meat                             | 15.7                     | 79.5      | 2.6               | 1.2                         | 1            | 13.2                  | 79.8          | 3.5            | 2.2                | 1.3          | 5.4                       | 94.6      |
| Sausages                                     | 13.4                     | 73.8      | 5.3               | 6.4                         | 1.1          | 13.5                  | 71.7          | 10.3           | 2.6                | 1.9          | 12                        | 88        |
| Pork based brochette                         | 8.1                      | 64.4      | 14.3              | 12.1                        | 1.1          | 9.8                   | 57.9          | 27.1           | 3.9                | 1.3          | 33.9                      | 66.1      |
| Small cuts                                   | 5.8                      | 60.1      | 13.7              | 19                          | 1.4          | 7.4                   | 60            | 25.8           | 5.2                | 1.6          | 24.5                      | 75.5      |
| Pork Escalope/Schnitzel                      | 10.6                     | 73.2      | 9.2               | 5.7                         | 1.3          | 12.3                  | 76.3          | 7              | 2.9                | 1.5          | 21.1                      | 78.9      |
| Pork cordon bleu                             | 10                       | 74.8      | 7.3               | 6.4                         | 1.5          | 15.2                  | 72.4          | 7.7            | 3                  | 1.7          | 17                        | 83        |
| Stuffed meat                                 | 9                        | 66.7      | 11.1              | 11.8                        | 1.3          | 9.7                   | 76            | 8.5            | 3.7                | 2.1          | 16.2                      | 83.8      |
| Mixed gyros-pita meat                        | 10.3                     | 73        | 7.8               | 7.6                         | 1.3          | 18.6                  | 54.7          | 22.1           | 3.2                | 1.4          | 59.8                      | 40.2      |
| Remaining mixed meat                         | 8.5                      | 76.2      | 6                 | 7.3                         | 2            | 12.9                  | 70.3          | 11.2           | 3.4                | 2.2          | 19.4                      | 80.6      |
| Other pork                                   | 7.8                      | 71.9      | 10.1              | 8.4                         | 1.8          | 8.4                   | 75.8          | 9.8            | 4.3                | 1.6          | 17.5                      | 82.5      |
| Marinated                                    | 6.4                      | 68.3      | 10.3              | 13.9                        | 1.1          | 8.8                   | 69            | 15.6           | 4.8                | 1.8          | 22.8                      | 77.2      |
| Lasagne                                      | 12.8                     | 74.8      | 6.1               | 5                           | 1.3          | 16.5                  | 69.6          | 9.2            | 3.3                | 1.3          | 17.5                      | 82.5      |
| Spaghetti bolognese                          | 16.6                     | 77.3      | 3.6               | 1.3                         | 1.2          | 14.3                  | 74.8          | 7.4            | 2.3                | 1.2          | 11.6                      | 88.4      |
| Pizza  | 12.1                     | 73.2      | 9                 | 4.7                         | 1            | 14.8                  | 61.5          | 19.8           | 2.4                | 1.5          | 32                        | 68        |
| Salami                                       | 10.9                     | 80.8      | 2.3               | 4.4                         | 1.6          | 20.1                  | 70.1          | 5.7            | 2.6                | 1.4          | 7.6                       | 92.4      |
| Cooked ham                                   | 10.3                     | 82.8      | 2.8               | 2.6                         | 1.5          | 18.8                  | 73.8          | 3.3            | 2.2                | 1.9          | 6.4                       | 93.6      |
| Dry cured ham                                | 8.8                      | 80        | 3.5               | 6.6                         | 1.2          | 16.8                  | 71.9          | 6              | 3.3                | 2            | 8.7                       | 91.3      |
| Dry cured meat products                      | 8.7                      | 81.6      | 2.8               | 5.6                         | 1.3          | 16.5                  | 74.1          | 5.1            | 2.4                | 1.9          | 8                         | 92        |
| Sausages                                     | 13                       | 78.6      | 2.6               | 3.9                         | 1.8          | 18.4                  | 72.3          | 5.7            | 1.8                | 1.9          | 10.3                      | 89.7      |
| Cooked sausages                              | 13                       | 80.2      | 1.8               | 2.7                         | 2.3          | 17.9                  | 73.4          | 4.8            | 2                  | 2            | 7.6                       | 92.4      |
| Liver paté                                   | 12.9                     | 81        | 2.4               | 2.2                         | 1.5          | 21                    | 72.5          | 2.6            | 2.4                | 1.7          | 7.2                       | 92.8      |
| Toppings                                     | 9                        | 82        | 2.9               | 4                           | 2            | 14.6                  | 74.4          | 6.6            | 2.5                | 1.9          | 8.2                       | 91.8      |
| Canned meat                                  | 12.7                     | 79.8      | 1.6               | 3.8                         | 2            | 23                    | 68.9          | 2.8            | 3.2                | 2            | 11.9                      | 88.1      |

**Table 2** Occasions when, the places where and people with whom respondents reported consumption of country specific products

| <i>Country specific products</i>                                       | When do you normally eat |         |                 |                           |            | With whom do you eat? |             |              |                  |            | Where do you normally eat |         |
|--|--------------------------|---------|-----------------|---------------------------|------------|-----------------------|-------------|--------------|------------------|------------|---------------------------|---------|
|  | On a week day            | Any day | During week end | Only on special occasions | Don't know | Alone                 | With family | With friends | In other company | Don't know | Outside home              | At home |
|  | %                        | %       | %               | %                         | %          | %                     | %           | %            | %                | %          | %                         | %       |
| Kabanosy (PO)  | 11.2                     | 78.4    | 4.7             | 4.7                       | 1.1        | 14.2                  | 78.4        | 4.1          | 2.7              | 0.5        | 11.5                      | 88.5    |
| Krakowska (PO)   | 11.8                     | 82.8    | 1.9             | 2.2                       | 1.3        | 11.3                  | 80.9        | 3.5          | 2.2              | 2.2        | 5.6                       | 94.4    |
| Wiejska (PO)   | 15.4                     | 79.1    | 2.2             | 1.7                       | 1.7        | 14.9                  | 78.5        | 3.6          | 1.7              | 1.4        | 6.9                       | 93.1    |
| Sülze(GE)  | 8.1                      | 90.1    | 1.2             | 0.6                       |            | 23.3                  | 68.6        | 4.1          | 2.9              | 1.2        | 4.7                       | 95.3    |
| Schweinegulasch, Schweinebraten, Hackbraten, Kassler, Frikadellen (GE) | 7.9                      | 83      | 5.3             | 2.3                       | 1.5        | 17                    | 78.7        | 2.3          | 0.9              | 1.2        | 7.3                       | 92.7    |
| Teewurst, Mettwurst (GE)   | 12.1                     | 85.8    | 1.7             | 0.3                       |            | 22.8                  | 74          | 0.9          | 1.4              | 0.9        | 2.9                       | 97.1    |
| Andet (DE)   | 8.9                      | 83.2    | 4.1             | 3.5                       | 0.3        | 12.3                  | 71.8        | 9.2          | 4.7              | 1.9        | 9.8                       | 90.2    |
| Andet pslÁg (DE)   | 11.5                     | 85.3    | 2               | 1                         | 0.2        | 23.1                  | 70.3        | 1.7          | 3.7              | 1.2        | 9.8                       | 90.2    |
| Andre fÁrdigretter (DE)  | 17.8                     | 74.6    | 0.5             | 5.2                       | 1.9        | 34.3                  | 62          | 0.5          | 1.4              | 1.9        | 8                         | 92      |
| Pork shoulder 'Spala'(GR)  | 14.5                     | 49.5    | <b>17.2</b>     | <b>15.1</b>               | 3.6        | 4.2                   | 76.1        | 12.7         | 3.3              | 3.6        | <b>20.2</b>               | 79.8    |
| Country-style sausage (GR)   | 10                       | 61.8    | <b>12.1</b>     | <b>14.6</b>               | 1.5        | 7.9                   | 59          | 28.7         | 2.3              | 2.1        | <b>21.5</b>               | 78.5    |
| Syggolino (GR)   | 8.9                      | 58.2    | <b>3.8</b>      | <b>27.8</b>               | 1.3        | 7.6                   | 65.8        | 17.7         | 6.3              | 2.5        | <b>36.7</b>               | 63.3    |
| Tigania (GR)   | 9.9                      | 59      | <b>11.9</b>     | <b>17</b>                 | 2.2        | 6.7                   | 60.6        | 28.5         | 1.9              | 2.2        | <b>35.9</b>               | 64.1    |
| Pork with celery (GR)  | 11.9                     | 58.5    | <b>11.9</b>     | <b>17.1</b>               | 0.5        | 6.2                   | 78.8        | 7.3          | 5.2              | 2.6        | 14.5                      | 85.5    |
| Parizaki (GR)  | 13.5                     | 75.2    | 3.2             | 5.5                       | 2.6        | 28.9                  | 58.8        | 6.8          | 2.6              | 2.9        | 9                         | 91      |
| Mortadela (GR)   | 14.4                     | 74.1    | 2.6             | 6.7                       | 2.2        | 26.7                  | 59.6        | 8.5          | 2.2              | 3          | 9.6                       | 90.4    |
| Sylte(DE)  | 8.6                      | 75.2    | 1.9             | 13.3                      | 1          | 25.7                  | 64.8        | 2.9          | 4.8              | 1.9        | 5.7                       | 94.3    |

GE = Germany  
 GR = Greece  
 DE = Denmark  
 PO = Poland